

A large Trumpeter Swan with a long, white neck and a black beak is swimming in dark water. Two small white cygnets are swimming in front of it. The background is a dark, textured blue.

NATIONAL
GEOGRAPHIC

School Bulletin

APRIL 20, 1964

Trumpeter Swan
Makes Comeback

... from the School Service Division

Published each week during the school year, October through May, by the National Geographic Society. Melville Bell Grosvenor, President.

IN THIS ISSUE Vol. 42, No. 26

- Cyprus
- Shakespeare In Pidgin English
- Trumpeter Swans
- Life Aboard Nuclear Sub
- Texas Ranches

... also Komodo Dragons, Immigrant Museum, Walnut Wood

Editor—Ralph Gray

Staff—Arthur P. Miller, Jr., Lea Ridgley, Charles H. Sloan, Janis Knudsen, O. Mac White; **Maps**—Karl A. Gudenberg; **Geographic Research**—Newton V. Blakeslee; **Color Printing Supervision**—James R. Whitney

Geography in the News

This summer a Canadian expedition will attempt a round trip voyage from Vancouver to Baffin Island's southeast tip through the icy island maze north of Canada. A two-way trip in one season has never been made.

About 20 sailors, scientists, and technicians will join expedition leader Scott Alexander aboard the *Northland Princess*. Alexander hopes to show that regular shipping can use the fabled Northwest Passage in summer months.

Norwegian explorer Roald Amundsen first negotiated a Northwest Passage during a 1903-06 expedition. The quest for an easy route to China lured many early explorers, including Henry Hudson, to the New World.

COVER—Mama trumpeter swan shepherds her brood across a lake in Grand Teton National Park. The story of the trumpeter swans' struggle for survival is on pages 408-409.

Photograph by Frederick Kent Truslow

Next Week: Fiji Islands, Grand Canyon, John Wesley Powell

Rates—United States, \$2.00 for 30 issues (one school year); Canada, \$2.50; elsewhere, \$3.00. U. S. only, 3 years for \$5.00. On bulk orders of 10 or more, one complimentary subscription to the person ordering.

Composition by National Geographic Phototypographic Division. Engraving by Lanman Engraving Company, Alexandria, Va. Printed by Judd & Detweiler, Inc., Washington, D. C.

Second class postage paid at Washington, D. C. International copyright. All rights reserved.

COPYRIGHT © NATIONAL GEOGRAPHIC SOCIETY 1964

CYPRUS **Strife No**

Fertile soil, mild climate, and beautiful scenery seem to bless Cyprus with everything its hard-working people need for a good life. The ancients called it "love's island."

But the location of Cyprus, third largest island in the Mediterranean Sea, makes it a perfect military base. Conquerors, Crusaders, and corsairs ruled and fought over it for nearly 3,500 years.

Cypriots won their independence from Britain in 1960 after years of guerrilla warfare. But the past conquests left scars.

Four of every five Cypriots are

Franc Shor, National Geographic Staff

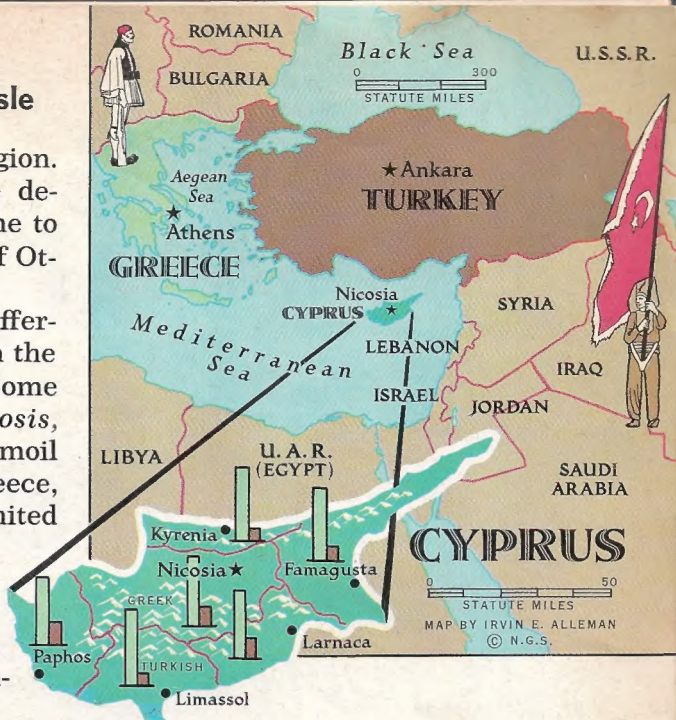


Stranger to Mediterranean Isle

Greek in language and religion. Most of the remainder are descendants of Turks who came to the island during 300 years of Ottoman Empire rule.

Cultural and political differences led to fighting between the two groups last December. Some of the Greeks demanded *Enosis*, union with Greece. The turmoil threatened to involve Greece, Turkey, and Britain. The United Nations stepped in with a peace-keeping force.

Until recently, Greek and Turk lived peacefully. City Turks kept to their own neigh-



Greek and Turk in parade dress uniform (above) eye the island peopled largely by their brethren. Vertical bars compare Greek-Turk population in the six districts, each named for its principal town. The republic is a British Commonwealth member.

Location: 45 miles from Turkey, 65 from Syria, 230 from the Suez Canal, and 500 from Greek mainland

Area: 3,572 square miles, about half the size of New Jersey; about 140 miles long, 60 miles wide

Population: 590,000, about 80 percent Greek origin, 18 percent Turkish, remainder Armenian, Arab, and English

Climate: dry and sunny

Farming: citrus fruits, grapes, olives, vegetables, carobs (seed pods used as fodder), and herding

Minerals: one of the world's best sources of umber (a pigment); asbestos and copper

Cypriot Turkish couple fork new-cut wheat into an ox cart daubed blue to ward off bad luck.





Martha C. Seely

Soldiers now guard Nicosia's busy Metaxas Square, shown here in happier times

borhoods. In the country, they farmed side by side with Greeks.

The fighting interrupted a promising start for the new nation. The average income in Cyprus was higher than in Greece or Turkey. Britain paid nearly a quarter of the national budget for bases near Limassol (LIM-uh-SOUL) and Larnaca (LAHR-na-kuh).

Britain also provided a ready market for citrus fruits, wines, vegetables, and olives. Copper, asbestos, and umber exports grew.

Tourists came, and found shop signs beckoning to them in Greek, Turkish, and English. Copper-smiths and other craftsmen plied their skills beside the shops.

The visitors heard muezzins sound calls to prayer from min-

arets. These slim towers were added to Gothic cathedrals that the Turks converted to mosques in Nicosia (nik-oh-SEE-uh) and Famagusta (fah-ma-GOOS-ta).

Before the troubles started, automobiles squeezed through narrow streets crowded with donkeys, horse carts, and bicycles. Gentle people, Greek and Turk alike, welcomed visitors. Hospitality rules demanded that no stranger leave a home without the traditional offering of preserved fruit and drink.

In the countryside, colorfully clothed farm people threshed wheat by hand near gnarled olive groves. Grapes ripened in the sun on terraced slopes. Tourists bought delicate lacework and saw farm

women weaving intricate patterns into scarves and spreads.

The island's Greek ties go back to the dawn of history. Deposits of copper—used for weapons—attracted Greek colonists. Our word “copper” stems from *Kypros*, Greek name for Cyprus.

Archeologists find Cyprus a rich hunting ground. They uncovered Salamis, once a thriving Greek city, near Famagusta.

Temple ruins mark a spot near Paphos (PAY-fohs) where ancient Greeks believed Aphrodite—their goddess of love and beauty—was born. Near the pagan shrine stands a marble pillar. Cypriots say St. Paul was tied to it and flogged for preaching Christianity. Other remains speak of Roman rule.

Many villages boast Byzantine chapels. Castles, built by Byzan-

tines and improved by Crusaders, cap mountain ramparts rising to 3,000 feet along the north shore.

A mighty Crusader fortress still protects the harbor of Kyrenia (ki-REE-nih-uh). Venetians extended Crusader fortifications at Famagusta and Limassol. A bastion made famous by Shakespeare (pages 406-407) is pointed out as “Othello’s Tower” in Famagusta.

Sturdy Venetian walls circle Nicosia, the capital. Excavations show the city dates back to 3000 B.C. It sits on a broad plain separating the northern mountains and a southern range that climbs above 6,000 feet.

Now tension grips “love’s island.” Rifle fire pocks the ruins. Lemons go unpicked. Tourists go elsewhere. Once again, foreigners patrol the streets. O.M.W.



Franc Shor, left, and David S. Boyer, National Geographic Staff

Children fill family water jugs at a public tap in Paphos (above). Patriarch in red Turkish fez (left) shops in Famagusta. Marketing calls for sharp haggling and is considered men’s work.



By Charles P. Ford from Catholic University Theater's performance of *Julius Caesar*

Shakespeare's Words Liven Our Language

Have you ever moved "bag and baggage," refused to "budge an inch," or had "too much of a good thing"?

William Shakespeare did, and in those very words. The bard (poet) penned phrases that have become part of everyday speech and known in many lands.

Julius Caesar is as exciting in Pidgin English in New Guinea (right) as when college students (above) play it as the author set it down. *The Taming of the Shrew* gets as many laughs in Paris, Texas, as it does in Paris, France.

This month, the world is observing the bard's 400th birthday.

He was born in Stratford-upon-Avon, England, in April, 1564

(page 414). His grave is in the same church where he was baptized.

In the 52 years between baptism and burial, Shakespeare must have seen and heard a great deal. His 37 plays show he knew law, seamanship, music, art, history, and many other subjects.

A shipwreck off Bermuda provided material for *The Tempest*. In *Othello*, the hero's adventures resemble some of Sir Walter Raleigh's tales. Shakespeare brings to life kings, commoners, wise men, and fools with equal skill.

To modern ears much of Shakespeare's English sounds strange. Yet even students who scoff and say "it's Greek to me" are quoting the Bard of Avon.

C.H.S.

Pidgin Bridges Language Gaps

The feather-topped tribesman of New Guinea pictured at right speaks an English that Shakespeare never knew.

Pidgin English is a shortcut tongue that lets people understand one another although they speak different languages. English traders developed it in Africa, India, China, Southeast Asia, and the South Pacific. The word "pidgin" is a twisted version of "business."

Since the 1600's, when it began to take shape, Pidgin English has grown into a "language" with dialects of its own.

In New Guinea, it took root so firmly that missionaries often use it today. Some government officials still issue orders in it to be sure they are understood.



John Scofield, National Geographic Staff

"Aniwei, yupela olesem wailpig. Nogat save." To the New Guinea mission school boy who translated part of Shakespeare's *Julius Caesar* into Pidgin English, the words make more sense than "O judgment! Thou art fled to brutish beasts. . . .!"

Try to read Pidgin about as it is spelled: "Anyway, you fella all the same as wild pig. No got savvy." "No got savvy" means "dumb." "Pela" (fellow) is a "thrown in" word of almost no meaning.

Below are more passages. Pidgin English is a spoken tongue. The translator spelled words the way he *says* them. Some will be meaningless because Pidgin borrows freely from local languages.

Pidgin	English	Shakespeare
Pren, man bolong Rom, Wantok, harim now	Friends, men of Rome, I want to talk. Hear me now	Friends, Romans, countrymen, lend me your ears
Aidono Brutus. Tasol mi nolaik tok nogut long Brutus	I don't know Brutus. So me no like talk no good along (about) Brutus	I speak not to disprove what Brutus spoke . . . but to speak what I do know
Ol i gipim me orait long me toktok sore hia long Kaesar	All he given me permission talk in sorrow here along Caesar	. . . under leave of Brutus . . . come I to speak in Caesar's funeral
Kaesar ia pren bolong mi tru. Gutpela dasol long mi	Caesar was friend belong me true. Good fella along me	He was my friend, faithful and just to me . . .

Trumpeter Swan Changes Its Habits to Stay Alive

The fight for survival has made the trumpeter swan a stay-at-home.

Centuries ago, trumpeters flew in graceful squadrons from summer nests near the Arctic Circle to winter homes in California and the Southeast. Twice a year, trumpetlike calls heralded the passage of thousands of the great birds along North American flyways.

Then snares and guns began to take their toll. Man, constantly looking for places to live and plant his crops, drained many of the trumpeters' marshy haunts.

In 1931, only 35 of the great birds, largest waterfowl in the world, were seen in the United States. Man, however, already was hard at work trying to save the creature he nearly destroyed.

In 1872, Yellowstone became the first National Park. All wildlife there was protected, including the trumpeter swans. A 1918 law shielded many migratory birds from hunters. Later, wildlife refuges became places of safety.

Today, about 2,000 swans cruise carefully protected waters.

But they have changed their habits. Throughout the year, the large birds stay near their nests, which are scattered among the sparsely settled highlands that stretch from southeastern Alaska to Wyoming.

With man on their side the surviving swans have little to fear.

Mink, otter, and coyote occasionally attack the young, but the total number of their victims is 408



Iron in water stains feathers of a floating f

small. Although eagles can knock adults out of the air, they seem to develop a taste for swan meat only in starving times.

The trumpeters stay alert, however, fleeing as fast as they can if danger seems near.

In water, adult trumpeters look like partially submerged submarines with periscopes extended. Sometimes they twist their long necks far over their backs to preen ruffled feathers (above).

When cygnets (SIG-nets), young



Frederick Kent Truslow

g female. Trumpeter swans duck their heads beneath the surface to feed on water plants

swans, are small, families cruise in convoys led by the father. Downy youngsters paddle along behind, followed by their watchful mother (cover).

The young hatch about five weeks after the pen, or female, lays her clutch of three to six large eggs in a sheltered nest.

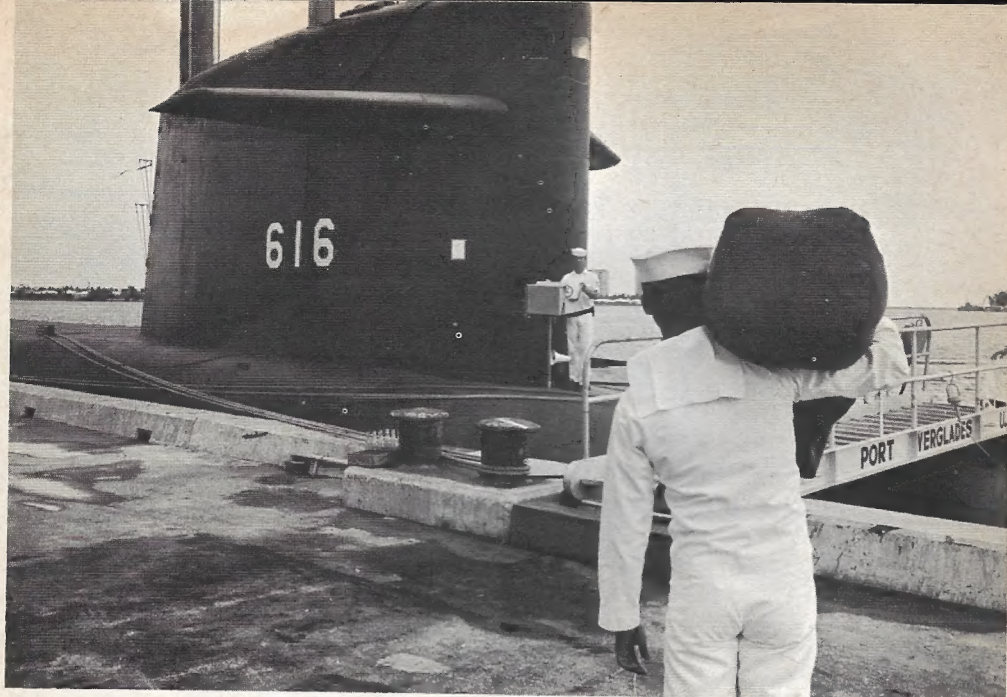
First feathers appear in about six weeks. By the time the birds become adults, they are snowy white, an average five feet long, with a six-foot wingspread.

To get their 30 pounds into the air, the birds run on the water for 100 feet or more. Their wings flap wildly and their big webbed feet kick spray 10 feet into the air. Once in flight, feet are tucked close under the tail.

Near the year-round nesting grounds, wavering lines of trumpeter swans still split the sky.

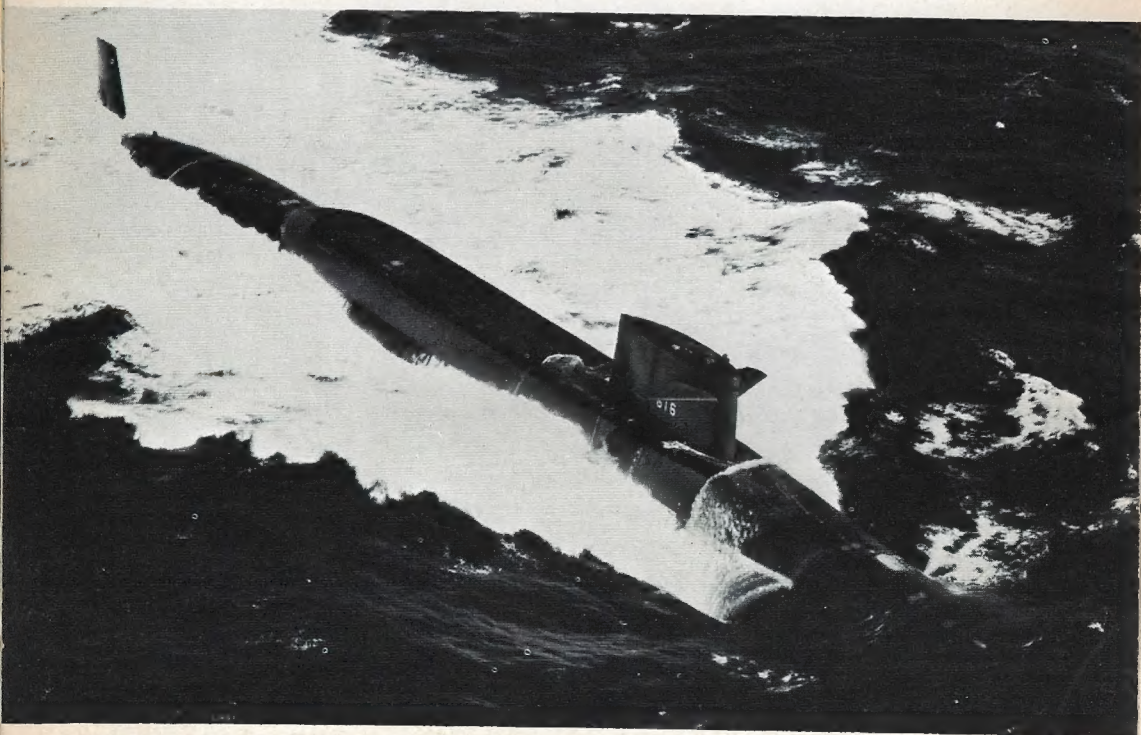
But the formations no longer thrill humans along the nation's flyways. That spectacular sight may be gone forever.

C.H.S.



Reporting aboard, Seaman Pozzuoli sees the number 616 that identifies his new home

Navy Boot Finds His Sea Legs Aboard



Nuclear power pushes *Lafayette* through Atlantic waves in a rare run on the surface



There is lots to learn on a triple-deck submarine, like how ventilation works (right)

the World's Largest Sub

Photographs by Harold E. Switzer,
Chief Photographer's Mate, U. S. Navy

VINCE POZZUOLI, from Detroit, Michigan, is new to the Navy, a "boot." Now he faces a young sailor's big challenge—his first ship.

And what a ship! Vince has trained for submarines, but he never expected to be ordered to the biggest, fastest, most powerful submarine in the world. USS *Lafayette* is the first ship of a third generation of missile-firing submarines. It is designed to provide the United States with a devastating counter-punch to any enemy attack on this country.

As he walks across the gangway, Vince enters a world of nautical wonders. He learns some amazing facts. All by itself his ship can launch from its missile tubes greater destructive power than all the bombs dropped by both sides during World War II. What's more, *Lafayette* can fire its missiles completely hidden underwater. The missiles whoosh to the surface, ignite, and fly toward targets up to 1,500 miles away.

Lafayette's sleek hull arrows through the depths powered by nuclear energy. It can cruise for months without refueling.

Operating this awesome package of power takes men of skill and courage. Tight teamwork and know-how, Vince learns, make a good submarine crew. He discovers that earning the silver dolphin emblem of a qualified submariner is tougher than passing courses back at St. Rose's High School in Detroit.

These photographs were taken during *Lafayette's* shakedown cruise off the coast of Florida. As you read this, Vince and his shipmates may be oceans away, keeping America's guard high.

Vince finds many ways to ward off the monotony of a long patrol



Steak and all the trimmings...

Two months underwater can be a lonely time. The scenery is always the same. Days blend into night. News of the outside world comes in by radio, but you can send no personal messages out (they might give the ship's position away).

The food is good, though. "Eating in the crew's mess is a lot like eating in any restaurant," says Vince, "except we eat in shifts." Frozen foods give the cook plenty of choice. Regular meals are supplemented by "soup-downs," in-between snacks of soup and sandwiches.

Part of the eight hours a day Vince is not on duty, eating, or sleeping, he spends studying his ship. He makes notes at mess hall lectures. He takes an electrical wiring diagram instead of a magazine back to his bunk at night.

A little fun helps too. A game starts at the drop of a card. Guitars twang. There's a movie every night—free. After the show, the cook may pass out slices of fresh-cooked pizza.



A few minutes for a haircut...

"Sacktime" study hall...





Experience plus training will bring Vince his silver dolphins

Trying to "make the team," Vince mans his station as planesman (above). He guides the vertical motion of the big ship by changing the angle of the diving planes. "You drive a submarine like you drive a car," Vince explains, "except you can't see where you're going."

At patrol's end, Vince goes on deck to help dock the sub. Now he looks forward to two months ashore while an alternate crew takes *Lafayette* out on another patrol. A.P.M.



Back in port, Vince helps tie up. *Lafayette* is longer than a football field



There's more to explore than peaks and valleys and shorelines. Cultural exploration is one of my favorite pastimes—tracing an immigrant trail across the plains, for instance, or visiting the home of Longfellow.

Many young people I know are fortunate enough to be going on a transatlantic Shakespeare hunt this summer. Their goal is Stratford-upon-Avon where Shakespeare was born 400 years ago (pages 406-407).

The medieval town lies in the heart of pastoral England about 80 miles northwest of London. Many of its half-timbered Tudor structures look much as they did in the master's day.

The house where Shakespeare was born stands in a side street. With its gables, small diamond-lead windows, and oak beams, it is a typical 16th-century middle-class house.

So little is known about Shakespeare's childhood, however, that no one can say with certainty, "This is where the boy learned his 'small Latin and less Greek,'" or "here he skipped stones across the Avon," or "watched plays given by strolling players."

Like many country youths of his time, Shakespeare went off to London to seek fame, probably about 1588. Following his brilliant career he returned home to retire in 1610.

Interest in Shakespeare's hometown grew steadily in the 18th century. The first Shakespeare festival in Stratford-upon-Avon was a grand affair organized by the actor David Garrick in 1769. Visitors included Samuel Johnson and James Boswell.

Stratford-upon-Avon built its first Shakespeare theater in 1879. Fire destroyed it in the 1920's. The present great theater was built in 1932, largely with American donations.

Dragons Come to Washington

Two dragons, flesh and blood remnants of dinosaur days (*GSB April 6, 1964*), dart long, forked tongues at visitors to Washington, D. C.

The dragons, safely behind glass at the zoo, recently arrived from Indonesia. They are called Komodo dragons, after the Indonesian island where the rare species lives.

Komodos are really the world's largest lizards. On their island home (below), they grow about 12 feet long and weigh more than 200 pounds. Scientists discovered them in 1912.

They gulp deer, goats, and boars, bones and all—sometimes sleeping a week after a big meal. When Komodo was a prison colony, there were reports of men being attacked. Scientists have found no proof of the stories.

Washington's dragons, a male and female, are roughly estimated at between 10 and 100 years old. No one has observed the species long enough to know how long individuals live.

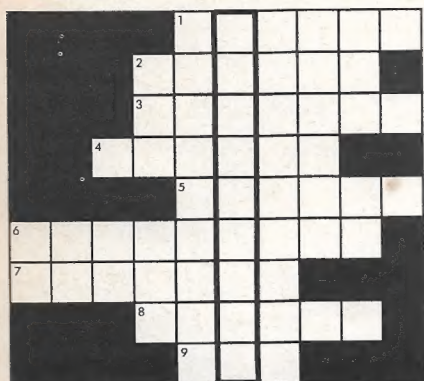


Gillaster-Reportage, Black Star

Komodo's powerful tail hangs ready to lash viciously at sign of danger.

GEO-GRAPH

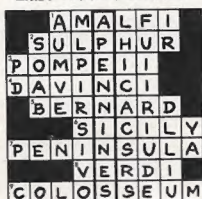
Solve the key word and learn the name of the Greek goddess of love and beauty. All words are used on pages 402-405.



ACROSS

- Seed pods used as fodder
- City on southwest coast of Cyprus
- Shakespeare play set in Cyprus
- Greek name for Cyprus
- Moslem place of worship
- People who built many Cyprus fortifications
- Capital of Cyprus
- Type of fruit Cypriots grow
- Turkish hat

Last Week's Answer



Museum Tells Immigrant Story

Even Indians, "the original Americans," will have a place in the American Museum of Immigration at the foot of the Statue of Liberty.

Exhibits will dramatize the peopling of the United States from the earliest arrivals from Asia thousands of years ago to today's Cuban refugees.

National Park Service officials hope the museum, located on Liberty Island in New York Harbor, will open in time to greet New York World's Fair visitors (*GSB February 3, 1964*). The fair is scheduled to begin April 22.

The Statue of Liberty's sculptor, Frédéric Auguste Bartholdi, first proposed such a display hall as part of his monument. The statue, 305 feet tall, was completed in 1886.

Rustlers Root for Walnut Wood

A new typerustler ranges woodlands for unlikely loot—walnut trees. Veneer worth \$20,000 wholesale can be peeled from one large tree.

Demand for furniture and paneling of the dark, lustrous wood with striking grain has mushroomed. Manufacturers use it at twice the normal rate.

The situation touched off a lively hunt both by legitimate loggers and unscrupulous people. Thieves cut 17 walnut trees from a private woodland in southern Maryland.

Enterprising loggers pull up stumps of long-dead trees that can bring \$6,000 apiece. They scout private yards for walnut trees that sometimes are worth more than the houses they shade. Old-fashioned solid walnut furniture is hauled from attics. It is sawed into thin sheets of veneer and glued over composition boards used for new furniture.

Early settlers found black walnut trees growing 150 feet tall. Today, a 100-foot tree is rare.

You are eligible to become a member of the

NATIONAL GEOGRAPHIC SOCIETY

As a reader of the *School Bulletin*, your interest in geography qualifies you for membership

☐ \$6.50 in U. S. & possessions
\$7.00 in Canada, \$8.00 elsewhere

Each member of the Society receives the 12 monthly issues of *National Geographic Magazine* without additional payment.

Clip and mail to

NATIONAL GEOGRAPHIC SOCIETY
WASHINGTON, D. C. 20036

NAME (One individual only)

ADDRESS

CITY, STATE, ZIP CODE

If this is a gift membership, please attach donor's name and address; we will send a gift card.

GSB 42



Howell Walker, National Geographic Staff

Across a Texas ranch, drovers herd Brahman cattle, a rugged breed from India

Cowboys Ride Herd on Shrinking Range

Cattle still reign supreme in Texas, but their homes on the range are changing.

Once land was cheap and plentiful. It took many acres to grow enough wild grasses to keep just one cow alive.

But irrigation turned barren land to lush pasture. Fewer acres were needed per head. Also, irrigation allowed crops more valuable than cattle to grow on former open range.

There still are arid sections where 25 acres barely support a cow. Ranchers say it takes 50 acres to keep a jack rabbit alive in parts of West Texas.

But most ranchers find they can operate more efficiently with a

few thousand acres than on the massive spreads of their grandfathers' day. President Lyndon B. Johnson finds 400 acres sufficient for his LBJ Ranch.

Modern taxes, as well as modern methods, help shrink ranches. "When taxes go up," one rancher explained, "this land is too high-priced to turn cattle on it."

A few of the old cattle empires remain intact. King Ranch (above) covers 980,000 acres near Corpus Christi. Rhode Island would fit into it with room to spare.

Cowboys—who heat branding irons with butane burners—mount trusty helicopter steeds to flush dogies on the 500,000 acres of the Waggoner Ranch.

O.M.W.